

By the End of Year 6

By the end of Year 6:

Number and Algebra

- Identify and describe properties of prime, composite, square and triangular numbers.
- Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers.
- Investigate everyday situations that use integers. Locate and represent these numbers on a number line.
- Compare fractions with related denominators and locate and represent them on a number line.
- Solve problems involving addition and subtraction of fractions with the same or related denominators.
- Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies.
- Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers.
- Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies.
- Multiply and divide decimals by powers of 10.
- Make connections between equivalent fractions, decimals and percentages.
- Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies.
- Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence.
- Explore the use of brackets and order of operations to write number sentences.

Measurement and Geometry

- Connect decimal representations to the metric system.
- Convert between common metric units of length, mass and capacity.
- Solve problems involving the comparison of lengths and areas using appropriate units.
- Connect volume and capacity and their units of measurement.
- Interpret and use timetables.
- Construct simple prisms and pyramids.
- Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies.
- Introduce the Cartesian coordinate system using all four quadrants.
- Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles.

Statistics and Probability

- Describe probabilities using fractions, decimals and percentages.
- Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies.
- Compare observed frequencies across experiments with expected frequencies.
- Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables.
- Interpret secondary data presented in digital media and elsewhere.

Directly from the Australian Curriculum:

By the end of Year 6, students recognise the properties of prime, composite, square and triangular numbers. They describe the use of integers in everyday contexts. They solve problems involving all four operations with whole numbers. Students connect fractions, decimals and percentages as different representations of the same number. They solve problems involving the addition and subtraction of related fractions. Students make connections between the powers of 10 and the multiplication and division of decimals. They describe rules used in sequences involving whole numbers, fractions and decimals.

Students connect decimal representations to the metric system and choose appropriate units of measurement to perform a calculation. They make connections between capacity and volume. They solve problems involving length and area. They interpret timetables. Students describe combinations of transformations. They solve problems using the properties of angles. Students compare observed and expected frequencies. They interpret and compare a variety of data displays including those displays for two categorical variables. They interpret secondary data displayed in the media.

Students locate fractions and integers on a number line. They calculate a simple fraction of a quantity. They add, subtract and multiply decimals and divide decimals where the result is rational. Students calculate common percentage discounts on sale items. They write correct number sentences using brackets and order of operations. Students locate an ordered pair in any one of the four quadrants on the Cartesian plane. They construct simple prisms and pyramids. Students describe probabilities using simple fractions, decimals and percentages.